

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE  
STATE OF CALIFORNIA**

Order Instituting Rulemaking to Continue  
Electric Integrated Resource Planning and  
Related Procurement Processes.

Rulemaking 20-05-003  
(Filed May 7, 2020)

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION'S  
REPLY COMMENTS ON PROPOSED THREE-YEAR SCHEDULE  
AND COMMENTS ON JULY 14, 2020 PREHEARING CONFERENCE**

Roger E. Collanton  
General Counsel  
Anthony J. Ivancovich  
Deputy General Counsel  
Anna A. McKenna  
Assistant General Counsel  
Jordan Pinjuv  
Senior Counsel  
California Independent System  
250 Outcropping Way  
Folsom, CA 95630  
Tel: (916) 351-4429  
Fax: (916) 608-7222  
Email: [jpinjuv@caiso.com](mailto:jpinjuv@caiso.com)

Dated: July 24, 2020

## Table of Contents

I.	Introduction.....	1
II.	Discussion.....	1
A.	The Commission Should Prioritize Authorizing Procurement to Replace The Diablo Canyon Power Plant.....	2
1.	The Commission’s Prior Modeling Demonstrates the Need for Additional Resources in the Near- to Mid-Term.....	2
2.	The Commission Should Not Delay Procurement Until After Adopting the Preferred System Plan.....	3
B.	The Commission Should Use the CAISO’s Local Capacity Technical Study to Provide Load Serving Entities with Procurement Policy Guidance.....	4
C.	The Commission Should Retain a Two-Year Planning Cycle.....	5
III.	Conclusion .....	7

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE  
STATE OF CALIFORNIA**

Order Instituting Rulemaking to Continue  
Electric Integrated Resource Planning and  
Related Procurement Processes

Rulemaking 20-05-003  
(Filed May 7, 2020)

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION'S  
REPLY COMMENTS ON PROPOSED THREE-YEAR SCHEDULE  
AND COMMENTS ON JULY 14, 2020 PREHEARING CONFERENCE**

**I. Introduction**

The California Independent System Operator Corporation (CAISO) hereby provides reply comments on the Proposed Three-Year Schedule in Attachment A of the *Administrative Law Judge's Ruling Scheduling Prehearing Conference and Seeking Comments on Proposed Proceeding Schedule* (Ruling), and responses to topics discussed at the July 14<sup>th</sup>, 2020 prehearing conference.

**II. Discussion**

At the July 14, 2020 prehearing conference, Administrative Law Judge Fitch explained the Commission's dilemma regarding two potentially divergent paths forward in this proceeding. The first path preserves the status quo by using individual load serving entity (LSE) resource plans to develop a Preferred System Plan (PSP) based on LSE preferences. The second path would focus on developing the Commission's long-term locational planning analysis and procurement authorized by the Commission. The CAISO, along with many other parties, do not believe these paths are mutually exclusive.<sup>1</sup> In either case, the retirement of Diablo Canyon Power Plant (Diablo Canyon)

---

<sup>1</sup> Peninsula Clean Energy (PCE) Prehearing Conference, Transcript p. 44; Women's Energy Matters (WEM) Prehearing Conference, Transcript p. 56; California Community Choice Association (CalCCA) Prehearing Conference, Transcript p. 50; Small Business Utility Advocates (SBUA) Prehearing Conference, Transcript p. 59; Sierra Club Prehearing Conference, Transcript p. 66; Union of Concerned Scientists (UCS) Prehearing Conference, Transcript p. 69; Natural Resources Defense Council (NRDC) Prehearing Conference, Transcript p. 77; Solar Energy Industries Association (SEIA) Prehearing Conference, Transcript p. 88.

should be addressed. The CAISO recommends that the Commission focus on authorizing least regrets procurement necessary to meet near- to mid-term needs caused by the scheduled retirement of Diablo Canyon. Procuring incremental resources necessary to meet system needs should be paramount, especially given the narrow timeframe to replace the capacity and energy provided by Diablo Canyon.

Although it may take additional time for the Commission to fully incorporate local needs into the integrated resource planning (IRP) process, the Commission can use existing information from the CAISO's Local Capacity Technical (LCT) Study to guide system procurement toward addressing local needs as well. Furthermore, local needs would generally only emerge if natural gas-fired generation retires in certain areas. In the near-term, the Commission should focus on providing LSEs with general policy guidance on local procurement objectives to consider while conducting system-level procurement. In the long-term, the Commission can consider whether to adopt more detailed local planning requirements in the IRP.

Lastly, by eliminating the Preferred System Plan by updating the Reference System Plan with individual firm LSE procurement, the Commission will be able to adhere to the current two-year IRP cycle.

**A. The Commission Should Prioritize Authorizing Procurement to Replace The Diablo Canyon Power Plant.**

**1. The Commission's Prior Modeling Demonstrates the Need for Additional Resources in the Near- to Mid-Term.**

As the CAISO detailed in its July 6, 2020 comments, both the 46 MMT Reference System Portfolio (RSP) and the 38 MMT by 2030 Portfolio demonstrate the need for significant new resource additions between 2024 and 2026. By 2026, the 46 MMT RSP includes the following incremental resource additions: 2,737 MW in wind generation, 8,000 MW in solar generation, 6,127 MW of battery storage, 973 MW in long-duration pumped storage, and 222 MW in shed demand response. At the same time, the 46 MMT RSP provides for no new natural gas generation retirement<sup>2</sup> by 2026 and only 30 MW of natural gas generation retirement by 2030. The 38 MMT by 2030 Portfolio indicates the

---

<sup>2</sup> Outside of once-through-cooling units already scheduled to retire.

need for additional wind, solar, battery storage and long-duration pumped storage by 2026 with no additional natural gas retirements in that timeframe.

The impending retirement of Diablo Canyon drives the need for new capacity and energy resources. The 2019-2020 IRP modeling shows the need for significant resource additions by 2026 to meet system reliability needs, even assuming all natural gas resources continue to operate. If the Commission wishes to facilitate retirement of any existing gas generation by 2026, it will need to authorize procurement of additional resources in excess of the already considerable amounts identified in the 2019-2020 IRP cycle. The Commission can, and should, authorize least-regrets procurement as soon as possible to replace Diablo Canyon. Establishing and authorizing a reasonable procurement target now is a least regrets approach, as there is substantial certainty that a large amount of new resources will be necessary to maintain reliability and meet the state's policy goals.

## **2. The Commission Should Not Delay Procurement Until After Adopting the Preferred System Plan.**

Several parties argue that the Commission should delay authorizing procurement until after LSEs file their individual plans and after the Commission adopts its next PSP. The Ruling's proposed schedule for PSP development indicates that the Commission does not plan to adopt a new PSP until the fourth quarter of 2021. Waiting to authorize new procurement until fourth quarter 2021 would severely inhibit LSEs' ability to run a comprehensive and open competitive solicitation processes in time to meet 2024 needs. Delaying procurement also likely jeopardizes any opportunity to replace existing natural gas generation with preferred resources.

Furthermore, it is not clear what benefit will be provided by waiting until the PSP is complete. Pacific Gas & Electric Company (PG&E), echoing similar comments by San Diego Gas & Electric Company (SDG&E), states "that embarking on a procurement track before a [PSP] is finalized will result in poorly considered procurement decision."<sup>3</sup> However, there is no basis to believe that the next PSP will either unwind the significant continued natural gas and new preferred resource needs identified in the 2019-2020 IRP

---

<sup>3</sup> PG&E *Combined Reply Comments on Preliminary Scope of Rulemaking and Opening Comments on Administrative Law Judge Ruling with Proposed Schedule*, R.20-05-003, July 6, 2020, p. 3. (PG&E Combined Opening & Reply Comments)

cycle or exceed the level of procurement required. In fact, the CAISO's operational analysis of the capacity shortfall identified in 2019 showed a need for 4,400 MW of energy versus the 3,300 MW ultimately authorized by the Commission.<sup>4</sup> It is highly unlikely that the development of a PSP will obviate the need for significant near- to mid-term resource procurement. In fact, as the CAISO proposes below, firm procurement from individual LSEs should be reflected in the Reference System Plan (RSP) instead.

**B. The Commission Should Use the CAISO's Local Capacity Technical Study to Provide Load Serving Entities with Procurement Policy Guidance.**

In comments and at the July 14, 2020 prehearing conference, numerous parties suggested that the Commission use the CAISO's most recent LCT Study to provide procurement policy guidance.<sup>5</sup> The CAISO agrees. The most recent LCT Study provides detailed information regarding local area load profiles and resource needs. Specifically, the 2021 LCT Study provides battery storage resource characteristics (in MW, MWh, discharge duration) that are required to seamlessly integrate in each local area and sub-area. For each local area and sub-area, the CAISO has estimated the battery storage characteristics, given each area's unique load shape, constraints and requirements as well as the energy characteristics of other resources required to meet local capacity standards, while allowing the replacement of reliance on natural gas resources with battery storage. Currently, significant amounts of the local requirements are met by natural gas-fired generation in many areas and sub-areas and it would generally only be the retirement of this gas-fired generation that would create an actual need for additional local capacity resources. Nevertheless, the Commission can use the CAISO's LCT Study to provide policy guidance for local area procurement in the near-term.

---

<sup>4</sup> CAISO, *Reply Comments*, R.16-02-007, August 12, 2019. See: <http://www.caiso.com/Documents/Aug12-2019-ReplyComments-PotentialReliabilityIssues-IRP-R16-02-007.pdf>

<sup>5</sup> Public Advocates Office, *Comment on Proposed Integrated Resource Plan Proceeding Schedule and Reply Comments on Preliminary Scoping Memo*, R.20-05-003, July 6, 2020, p. 6 (Cal Advocates Comments & Reply Comments); American Wind Energy Association (AWEA) *Reply Comments on Order Instituting Rulemaking and Related Procurement Processes*, R.20-05-003, July 6, 2020, p. 6; Justice Parties, *Reply Comments on Order Instituting Rulemaking and Related Procurement Processes*, R.20-05-003, July 6, 2020, p. 4 (Justice Parties Reply Comments); Tesla, Prehearing Conference, Transcript p. 35; California Wind Energy Association (CalWEA) Prehearing Conference, Transcript p. 81.

Though the CAISO believes the Commission can use this information to guide new procurement, the CAISO understands there is insufficient time to fully develop new IRP-based locational analysis tools prior to authorizing new system procurement. That reality, however, should not delay the Commission from approving new system procurement. Rather, the Commission should expedite least regrets system procurement while it continues to work toward better local procurement guidance.

**C. The Commission Should Retain a Two-Year Planning Cycle.**

The CAISO agrees with parties that a two-year IRP cycle should be maintained.<sup>6</sup> The two-year cycle will ensure there are more opportunities to procure long-lead time resources needed to ensure reliability and orderly retirement of gas-fired generation plants. Also, there is a greater assurance that demand and supply side inputs are up-to-date and aligned across different planning and procurement processes.

On the load-modifying side, the California Energy Commission's (CEC's) Integrated Energy Policy Report (IEPR) forecast used in the IRP portfolio currently only lags the CAISO's Transmission Planning Process (TPP) by one year. A greater lag could seriously diminish the accuracy and credibility of the IRP portfolio. In fact, the CEC's IEPR is also on a two year cycle. Prior to 2018, major demand forecast assumptions were refreshed in odd-numbered years (full IEPR) but only a small subset of economic and demographic drivers and historical data were refreshed in even-numbered years (IEPR Update). To keep pace with the rapid change in load modifying resource assumptions, the CEC has since modified this practice so that significant load modifiers are also updated in even-numbered years.<sup>7</sup> Starting with the 2018 IEPR Update, the CEC now includes refreshed projections of solar photovoltaic system adoptions, plug-in electric vehicle adoptions, community choice aggregators, and time-of-use rate impacts.<sup>8</sup>

---

<sup>6</sup> Southern California Edison, *Reply Comments on Order Instituting Rulemaking and Comments on Proposed Proceeding Schedule*, R.20-05-003, July 6, 2020, p. 5 (SCE Reply Comments); CalWEA, *Reply Comments on Order Instituting Rulemaking and Comments on Proposed Proceeding Schedule*, R.20-05-003, July 6, 2020, p. 2 (CalWEA Reply Comments); CESA *Reply Comments on Order Instituting Rulemaking and Related Procurement Processes*, R.20-05-003, July 6, 2020, p. 6 (CESA Reply Comments); Golden State Clean Energy Prehearing Conference, Transcript p. 38; Cal Advocates Prehearing Conference, Transcript p. 42; Cogeneration Association Prehearing Conference, Transcript p.77.

<sup>7</sup> California Energy Commission, *Final 2018 Integrated Energy Policy Report Update*, Volume II, p. 8.

<sup>8</sup> *Id.*, p. 8.

The CEC’s action clearly illustrates that more frequent updates are needed to ensure the IEPR forecasts are relevant and capture emerging trends, especially in how these load modifiers change the forecast and hourly load shape. Thus, a two-year cycle should be maintained to ensure process alignment between the Commission, CEC, and CAISO planning and procurement, and any lag in the IEPR forecast should be at most a single year.

On the supply side, California Energy Storage Alliance (CESA) cites the Commission’s own observation that in moving from the 2017-2018 IRP to the 2018-2019 IRP cycle, the “rapidly-declining technology costs of solar and battery storage resources” outpaced expectations, and thus drove “the resulting optimal portfolio to be concentrated in solar and storage resources.”<sup>9</sup> The CAISO agrees with CESA and the Commission that market dynamics are evolving, and therefore a two-year IRP cycle would better capture such rapid change. On the other hand, a significant amount of the resources selected by the RESOLVE portfolios are transmission-dependent and a two-year cycle allows more opportunities than a three-year cycle to plan for and analyze these resources.

The most common argument for a three-year cycle is that more time is needed for the Commission and LSEs to conduct robust planning and assessment of reliability needs.<sup>10</sup> However, there are ways to ensure accurate planning and procurement for system needs within a two-year framework. First, the CAISO agrees with parties that the Commission could eliminate the RSP or PSP to streamline the IRP cycle.<sup>11</sup> The CAISO would prefer to retain the RSP with a production cost modeling (PCM) reliability check as it better ensures the portfolio adequately meets reliability and state goals. Under an RSP-only IRP cycle, the portfolio is comprised of a baseline of existing resources and incremental capacity based on RESOLVE’s optimization. Collectively, the entire portfolio is tested for reliability by iterating between RESOLVE and PCM. The Commission can then credit firm procurement from individual LSE’s IRPs against the

---

<sup>9</sup> CESA Reply Comments, p. 4.

<sup>10</sup> PG&E Combined Opening & Reply Comments, p. 4; Cal Advocates Comments & Reply Comments, p. 1; CalCCA, *Comments on Three-Year Planning Schedule*, R.20-05-003, July 6, 2020, p. 1.

<sup>11</sup> CAISO, *Consolidated Reply Comments on Preliminary Scoping Memo and Opening Comments on Proceeding Schedule*, R.20-05-003, July 6, 2020, p. 9; SCE Reply Comments, p.7; SDG&E *Reply Comments Regarding Preliminary Scoping Memo and Schedule*, R.20-05-003, July 6, 2020, p.6; PG&E Combined Opening & Reply Comments, p.5-6; CalWEA Reply Comments, p. 2.



generic RESOLVE incremental capacity. Firm procurement reflects signed or announced projects with specific resource characteristics. This is in contrast to goals, intentions, request for offers, or generic resources. Adding LSE firm procurement would establish the new baseline for the RSP reflective of individual LSE actions. Then, the remaining incremental capacity from generic RESOLVE outputs would guide the Commission on how to direct procurement obligation amongst LSEs. This process would allow the Commission to eliminate the PSP and the additional work to produce it and maintain a two-year IRP cycle while still ensuring robust analysis to meet reliability and state goals. The CAISO also agrees with parties that the Commission should provide actionable policy guidance to LSEs on procurement and clear guidance on how their plans will be operationalized.<sup>12</sup> This ensures that planning translates into tangible procurement needed for grid reliability and state goals, while improving the efficacy of a two-year IRP cycle.

### **III. Conclusion**

The CAISO appreciates the opportunity to file these comments and looks forward to working with the Commission and parties to reform the IRP planning and procurement tracks.

In sum, the Commission should prioritize authorizing procurement to replace Diablo Canyon. The Commission's own modeling demonstrates the need for additional resources in the near- to mid- term. This least regrets of authorizing procurement as soon as possible, not until after the PSP is adopted, is necessary to maintain reliability and meet state goals. Furthermore, the Commission should use the CAISO's LCT Study to provide LSEs with procurement policy guidance.

The CAISO has provided several reasons why a two-year IRP cycle should be maintained, including greater alignment with the TPP and IEPR, accurate inputs and assumptions, and sufficient opportunities to procure long-lead time resources. In addition, the CAISO has addressed the argument against a two-year cycle- more time for robust planning and analysis- by providing several ways the Commission can address needs in a two-year cycle. Such measures include eliminating the RSP or PSP and

---

<sup>12</sup> SCE Reply Comments, p. 11; Justice Parties Reply Comments, p. 9; CalWEA Reply Comments, p. 3; Calpine Reply Comments, p. 1.

providing actionable policy guidance to LSEs on procurement. In short, there is no need to conduct more analysis and extend the cycle to three-years where there are ways to achieve the same robust system planning in a two-year cycle. Thus, the CAISO strongly urges the Commission to maintain the current two-year IRP cycle.

Respectfully submitted

**By: /s/ Jordan Pinjuv**

Roger Collanton

General Counsel

Anthony Ivancovich

Deputy General Counsel

Anna A. McKenna

Assistant General Counsel

Jordan Pinjuv

Senior Counsel

California Independent System

Operator Corporation

250 Outcropping Way

Folsom, CA 95630

T: (916) 351-4429

F: (916) 608-7222)

[jpinjuv@caiso.com](mailto:jpinjuv@caiso.com)

Attorneys for the California Independent  
System Operator Corporation

Dated: July 24, 2020